BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited.

IMPRESSIONS AND PREJUDICES REGARDING OPERATIVE PROCEDURES IN CASES OF PULMONARY TUBERCULOSIS*

Robert A. Peers, Colfax—Patients suffering from active pulmonary tuberculosis or from tuberculosis which has recently been active not infrequently develop complications requiring operative surgical interference. In addition they are subject to the same degree as the non-tuberculous to disease and accident calling for surgical intervention. Sometimes the necessary surgery is distinctly minor; but at other times major surgical operations are indicated. The tuberculosis specialist who over a period of years sees many thousands of tuberculous patients including a great number upon whom surgery has been performed or for whom surgery is indicated and has been suggested, comes in time to entertain opinions of value to the surgical consultant. Likewise he receives and retains impressions, if he is observant and open-minded, which are of great assistance to him in forming an opinion as to the risk or safety of performing operations. Also with the passing of the years he, perhaps, accumulates prejudices against the employment of certain surgical operations in the presence of active, or recently active, tuberculosis. He is able to cite many cases which have come under his observation which support these impressions and prejudices, and he may or may not be able to produce satisfactory statistics supporting them. At any rate these impressions and prejudices remain and influence his opinion when consulted regarding the desirability or advisability of operation in a given case.

It is the intention of the writer to here outline some of his own impressions received during an experience of twenty years in the treatment of tuberculous patients.

It is perhaps trite to remark that patients with active pulmonary tuberculosis or recently active pulmonary tuberculosis are not the best surgical risks. It is self-evident that patients with extensive and acute disease should not be submitted under any circumstances to the shock of surgery unless absolutely imperative. But circumstances do continually arise where minor and major surgery must be considered in patients who are progressing more or less favorably and in whom the outlook, from the tuberculosis point of view, is encouraging. The surgeon then wishes the opinion of the tuberculosis specialist as to the probable influence of surgery upon the patient's tuberculous lesion.

What will be the effect of a general anesthetic? Should the operation be done under local anesthesia or spinal anesthesia? If a general anesthetic is used what is the anesthetic of choice? Will the wound heal readily? Will the surgical insult to the patient's body increase the activity of the patient's disease or reactivate foci already quiescent? These and other very pertinent questions occur to the mind of the surgeon.

These questions have been put to the writer on numerous occasions by surgeons and by the friends of the patients. The impressions and prejudices left by experience lead the writer to answer as follows:

1. Tuberculous patients other than those much weakened by prolonged active disease stand general anesthesia extremely well. In the hands of a skilled anesthetist the ill effects of ether or chloroform anesthesia are not markedly greater than those seen after their use in the non-tuberculous. This opinion holds particularly for operations below the diaphragm—on the gall bladder, the appendix, the uterus and adnexa, and for operations on the genitourinary tract, including the removal of a tuberculous kidney. The author has had a limited personal experience with spinal anesthesia in tuberculous patients, but his impression is that the presence of pulmonary tuberculosis is not a contraindication against, nor a marked indication for, the use of this form of anesthesia. Personally the writer ordinarily advises gas and oxygen anesthesia where available and otherwise satisfactory, but sees no objection to ether and chloroform where these anesthetics must be used.

2. Operation wounds heal as readily as in the non-tuberculous except:

(a) Following tonsil removal where the wound frequently heals slowly and, not extremely infrequently, fails to heal.

(b) Following operation for tuberculosis complications, such as tuberculous peritonitis and enteritis, removal of a tuberculous kidney or in operations on tuberculous bones and joints.

(c) Operations for removal of anal or rectal fistula.

3. Tuberculous patients do react well following surgical insult, and it is truly remarkable how well they recover with little or no evidence of increased activity or reactivation of quiescence

* See also article in this issue, page 495, by Henry Holt, M. D., dealing with this subject.

following even major surgical operations, particularly operations below the diaphragm.

4. The author has, with the passing of the years, accumulated certain prejudices regarding surgery as it affects tuberculous persons. He is moved to record two here:

(a) Persons with active tuberculosis, or recently active tuberculosis, should not have operations performed on the pharyngeal or nasopharyngeal structures if such operations can be avoided. This prejudice applies particularly to removal of the tonsils. The prejudice is based upon the very frequent experience of seeing patients whose pulmonary activity has apparently been lighted up and very active and dangerous tuberculosis precipitated by tonsillectomy. In addition, many cases of reactivation of quiescent lesions have been seen following this operation. These accidents have been seen so frequently that the writer always advises against such operations, unless imperative, in all active tuberculous persons and in non-active tuberculous persons until an apparent arrest has been maintained over a period of two or three years.

(b) It is inadvisable to do a radical operation for the elimination and cure of an extensive rectal or anal fistula in a tuberculous person unless such operation is imperative. Such fistulas in patients who are gradually securing an arrest of their tuberculosis will eventually heal in the majority of cases with the recovery of the pulmonary lesions. Most of them are nuisances rather than dangerous complications. Unless they become acutely inflamed, as sometimes happens, they are better left alone.

CONCLUSIONS

1. A decision to operate on a tuberculous patient should depend largely upon the urgency of operation. The presence of active tuberculosis in a patient who is apparently doing well should not prevent surgical intervention where an acute surgical complication of a dangerous nature occurs; nor should it prevent surgical interference where so-called surgical or non-pulmonary tuberculosis requires the intervention of the surgeon. On the other hand, surgery which can be postponed without injury to the patient should be delayed.

2. Tuberculous patients bear general inhalation anesthesia well, and do not show a marked tendency to increased pulmonary activity following its exhibition.

3. Removal of tonsils should be avoided if possible in persons with pulmonary tuberculosis.

4. Radical operations on rectal or anal fistula are to be avoided when possible.

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F. M. Pottenger, Monrovia—I hold opinions very similar to those expressed by Doctor Peers in his paper; however, I am not favorable to the use of ether as an anesthetic for tuberculous patients. It is undoubtedly more irritating than other general anesthetics and, with its power of penetrating the cells, I think it often exerts a harmful influence upon the tuberculous process. I agree with Doctor Peers that no patient suffering from active tuberculosis should be submitted to operative procedure unless it be absolutely necessary.

Regarding tonsils, I have seen many patients lose their lives because they were unable to recover from the removal of tonsils; and the strange thing is that most of these operations were unnecessary. They were done because of a belief that the tonsil was the source of the cough; or that it contained a focus of infection which was responsible for the pains in the chest and shoulder from which the patient complained; or that this supposed tonsillar infection was the cause of the patient's lowered vitality.

I never submit a patient to a tonsil operation until his tuberculosis has become inactive, unless he has had repeated attacks of tonsillitis, showing definitely that there is a harmful focus which is likely to injure his chances of cure.

I maintain the same attitude toward operations for anal or rectal fistula. It is far better to withhold operation until the disease is arrested.

The fact that the tuberculous patient makes a good recovery from an operation in a great proportion of instances does not indicate that the operation has not done harm. The effects of such procedure are often not visible until some time after the operation has been performed. I would not withhold operation from a patient with active tuberculosis if the operation was essential for removing some condition which seriously impaired the patient's chances of recovery or threatened his life. On the other hand, I would never submit a patient suffering from active tuberculosis to an operation unless I was convinced that the condition which made the operation necessary was more serious than the tuberculosis.

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Louis Boonshaft, San Jose—My opinions are somewhat similar to those of Doctor Peer's and Doctor Pottenger's in reference to surgical interference on the tuberculous patient.

As to the anesthetic used I prefer gas and oxygen anesthesia. Ether anesthesia is somewhat dangerous unless given by an expert.

Nose and throat operations on patients having active disease should be avoided, particularly tonsil operations. I have seen some very disastrous results following tonsil operations on patients with active disease, and also on the so-called arrested cases. These operations should be avoided on an individual having or having had tuberculosis unless it is absolutely necessary.

As for rectal and anal fistula most of these get well as the condition of the patient improves, and

surgery is not indicated unless the condition is very extensive.

Surgery of any type on the tuberculous patient should not be done unless it is imperative.

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George B. Kalb, Monrovia—Doctors Peers, Pottenger, and Boonshaft express the opinion of the majority of the profession who devote their attention to the tuberculous patient, although each of us varies slightly from the rest in his opinions, as his experiences, which aided in forming them, have varied.

With the rest, I believe that no needless operation should be undertaken in the tuberculous, whether active, quiescent, or arrested.

I have seen a quiescent lung reactivated by a pneumonia set up by ether anesthesia, and have never seen it after gas-oxygen, spinal, or local anesthesia. So I always advise against the use of ether.

When the teeth or tonsils are such that they should come out their removal is recommended if the patient's tuberculosis is not too active, but never under a general anesthetic with the exception of gas-oxygen, which may be used when it is not possible to give a local anesthetic.

Under the above rules, patients who have undergone, on my advice, these operations, as well as abdominal sections and various operations about the chest, such as fifteen extrapleural thoracoplasties, have done well.

On the whole it seems to me that tuberculous patients stand operations remarkably well, but with them, as with all others, any operation is accompanied by more or less shock and may be the deciding factor against ultimate recovery. To summarize:

1. Avoid all operations on the tuberculous, unless the danger of operation is greater than that of no operation.

2. When you must operate use local, spinal or gas-oxygen anesthesia and keep up the tuberculosis treatment during convalescence.

Treatment of Pulmonary Tuberculosis—With all that has been said and written regarding tuberculosis, it is amazing how little the average individual, interested in other affairs until tuberculosis becomes a personal matter, knows about the disease, or if he has a fair general knowledge, the difficulty of applying this to his own case becomes apparent unless there is a background based on sound instruction and a practical knowledge acquired by observation and actual practice.

Rest, clean air and proper food constitute the background or arch support of tuberculosis therapy, and rest is the keystone of the arch; without rest, physical and mental, all other known measures will fail in the majority of cases of clinical tuberculosis. The patient must be taught the principles of hygienic living, the value of fresh air, sunshine, proper food, rest and exercise, and their proper place. He must be taught to avoid excesses and excitement of every description. He must be taught the reasons for sleeping alone in a properly ventilated room or porch and to regulate his life to the strictest routine, all of which is a difficult contract to carry out and to keep within the family budget, with the average home facilities, to say nothing of the gratuitous advice of friends or relatives who may be deceived by the patient's apparent appearance of good health. To maintain a routine as outlined demands incessant watchfulness and attention even with a cooperative and intelligent patient, and frequently requires more time than the busy practitioner can spare.

By reason of the chronicity of the disease, home treatment at the proper time makes up the larger part of the consumptive's life. It is not necessary or wise for him to spend his days in the sanatorium unless he has arrived at that stage when permanent bed treatment is required and cannot be given at home. The real value of the sanatorium in early cases is its educational program and so far as it has failed in educating its patients, so far has it failed in the treatment of tuberculosis. While it is true that any educational effort on the part of the nurse or physician makes little if any impression with some, it is certainly fair to assume that the majority of those instructed are better able to care for themselves over a long period of convalescence, and to adjust themselves to a more or less permanent handicap after returning to an industrial life, or the maintenance of a home.

Broadly, three stages of the disease are recognized: minimal, second and third stages; the classification being based on the extent of the involvement and not on the symptoms or the degree of activity. A minimal case may present more evidence of toxicity than one with a whole lung involved and as follows may present a more doubtful prognosis. It is evident therefore that the same prescription is not applicable to two cases presenting substantially the same pathology. Exercise which is a tonic for one may aggravate the symptoms of the other; therefore, before any treatment is adopted the diagnosis must go further than to say tuberculosis is present. It must determine the degree of activity and the extent of the involvement together with a "sizeup" of the patient's general, physical and mental equipment, home surroundings and financial resources. All of these questions may be determined in the home provided there are the proper facilities for observation and care. Lacking home facilities, sanatorium treatment is indicated as the first procedure rather than as a last resort; these patients should be under supervision and a rigid routine before they have become too ill for any form of treatment except terminal care. Early home treatment in the hands of a specialist with an intelligent patient and with proper facilities is undoubtedly preferable in many instances: there is no question that in the hands of a few it has yielded brilliant results. It is not the individual, however, or the isolated case that is under discussion, but the group as a whole which must be considered. . . .

The treatment or mode of life lies between two extremes: absolute bed rest with feeding by the nurse and the use of the bed-pan on the one hand, to merely observation from time to time or a camping trip in the wilderness. An early case in a young adult with fever, rapid pulse and possibly hemorrhage, requires bed rest, prolonged in many instances several months beyond the period of a normal temperature, whereas the chronic fibroid type of many years' duration may live a fairly active life, and unknown as a consumptive among his fellow-workers. . . .

We believe that absolute frankness in talking with a patient accomplishes the best results, even to the point of telling the truth regarding a cavity. His apprehensions are allayed when he learns that all tuberculous processes are followed by cavitation. They are interested in the subject and their attendance equals their attendance at moving pictures.—Ernest B. Emerson, M. D., in *The Boston Medical and Surgical Journal.*